L Number	Hits	Search Text	DB	Time stamp
1	1002	silazane with silicon$9	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 09:59
2	2771	$20silazane with silicon$9	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 09:57
3	2563	($20silazane with silicon$9) and silicon	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 09:57
4	391	(($20silazane with silicon$9) and silicon) and dielectric	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 09:57
5	314	((($20silazane with silicon$9) and silicon) and dielectric) and substrate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 09:58
6	262	(((($20silazane with silicon$9) and silicon) and dielectric) and substrate) and (conduct$3 polysilicon)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 13:45
7	70	(((($20silazane with silicon$9) and silicon) and dielectric) and substrate) and (conduct$3 polysilicon)) and ($20silazane with deposit$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 13:46
9	3	"10273667"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 10:11
10	29	(((($20silazane with silicon$9) and silicon) and dielectric) and substrate) and (conduct$3 polysilicon)) and ($20silazane with dielectric)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 13:46
-	240	dielectric adj (layer film) with (silicon adj containing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/20 15:27
-	57	(dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2) near3 source$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/20 15:53
-	57	((dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2) near3 source$1)) and (conduct$3 near$3 (layer film))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:48

-	302	(silicon adj containing) with (dielectric near3 (layer film))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:51
-	148	((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (source gas$2))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:53
-	3	(((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (source gas$2))) and silazane	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:30
-	3	((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:33
-	0	(silicon adj contaning) with (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/19 09:48
-	63	(silicon adj containing) with (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:57
-	4	((silicon adj containing) with (silicon with silazane)) and nitridi$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:57
-	1	"6197628".PN.	USPAT	2002/09/23 08:58
-	1	"5637527".PN.	USPAT	2002/09/23 08:59
-	708	(silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:08
-	18	dielectric with (silicon with nitridizing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:03
-	116	semiconductor and (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:33
-	63	((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silazane silane))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:34
-	9	(((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silazane silane))) and (nitridation nitridzation nitridizing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:35

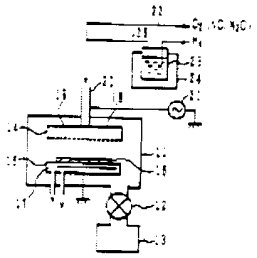
-	13	dielectric with (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:28
-	605	(silicon adj containing) with dielectric	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:29
-	204	((silicon adj containing) with dielectric) and (conduct$3 adj (layer film))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:33
-	69	(((silicon adj containing) with dielectric) and (conduct$3 adj (layer film))) and ((silicon adj containing) with (react$4 agent ambient))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 12:47
-	1	"6358838".PN.	USPAT	2003/02/11 09:47
-	1	"5461010".PN.	USPAT	2003/02/11 09:52
-	1	"6214748".PN.	USPAT	2003/02/11 09:52
-	1	("5567661").PN.	USPAT	2003/02/11 12:47
-	1	"5320875".PN.	USPAT	2003/02/11 14:04
-	1	"5318928".PN.	USPAT	2003/02/11 14:04
-	1	"5298587".PN.	USPAT	2003/02/11 14:05
-	1	"5000113".PN.	USPAT	2003/02/11 14:05

L Number	Hits	Search Text	DB	Time stamp
-	240	dielectric adj (layer film) with (silicon adj containing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/20 15:27
-	57	(dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2) near3 source$1)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/20 15:53
-	57	((dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2) near3 source$1)) and (conduct$3 near$3 (layer film))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:48
-	302	(silicon adj containing) with (dielectric near3 (layer film))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:51
-	148	((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (source gas$2))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:53
-	3	(((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (source gas$2))) and silazane	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:30
-	3	((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:33
-	0	(silicon adj contaning) with (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:56
-	63	(silicon adj containing) with (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:57
-	4	((silicon adj containing) with (silicon with silazane)) and nitridi$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 08:57
-	1	"6197628".PN.	USPAT	2002/09/23 08:58
-	1	"5637527".PN.	USPAT	2002/09/23 08:59
-	708	(silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:08
-	18	dielectric with (silicon with nitridizing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:03

-	116	semiconductor and (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:33
-	63	((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silazane silane))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:34
-	9	(((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silazane silane))) and (nitridation nitridzation nitridizing)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/09/23 09:35
-	13	dielectric with (silicon with silazane)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:28
-	605	(silicon adj containing) with dielectric	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:29
-	204	((silicon adj containing) with dielectric) and (conduct$3 adj (layer film))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 09:33
-	69	(((silicon adj containing) with dielectric) and (conduct$3 adj (layer film))) and ((silicon adj containing) with (react$4 agent ambient))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/02/11 12:47
-	1	"6358838".PN.	USPAT	2003/02/11 09:47
-	1	"5461010".PN.	USPAT	2003/02/11 09:52
-	1	"6214748".PN.	USPAT	2003/02/11 09:52
-	1	("5567661").PN.	USPAT	2003/02/11 12:47
-	1	"5320875".PN.	USPAT	2003/02/11 14:04
-	1	"5318928".PN.	USPAT	2003/02/11 14:04
-	1	"5298587".PN.	USPAT	2003/02/11 14:05
-	1	"5000113".PN.	USPAT	2003/02/11 14:05

FIG.1A

FIG.1B



example, organic silicon materials having the structures shown in FIGS. 2A to 2D may be used. It is preferable to use silazane compound having a ring or cyclosilazane structure.

(53) O.sub.2, N.sub.2 O, and NO may be used as oxidant, and other oxidants may also be used. NF.sub.3 or NH.sub.3 may be added to the oxidant. It is apparent to those skilled in the art that various modifications, improvements, combinations and the like can be made without departing from the scope of the appended claims.

CLAIMS:

We claim:

1. A method of manufacturing a semiconductor device having an insulating film comprising the steps of:

preparing a semiconductor substrate having one of convexities and concavities which create a step height on a surface thereof; and

generating plasma by using organic silicon having tri- or more silazane bonding and oxidant and depositing a planarized insulating film on said semiconductor substrate by plasma chemical vapor deposition at a substrate temperature of about 100.degree. C. or lower in order to significantly reduce

	U	1	Document ID	Issue Date	Pages	Title
21	☐	☐	US 5567661 A	19961022	12	Formation of planarized insula film by plasma-enhanced CVI
22	☐	☐	US 5508368 A	19960416	15	Ion beam process for deposit

EAST Browser - L11: (129) transistor w... | US 6380055 | Tag: S | Doc: 1/129 | "Drawings" 2/3 (Total images 10)

File Edit View Tools Window Help

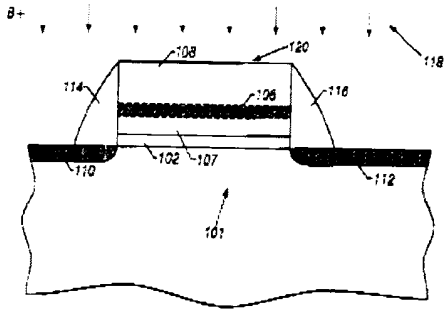


FIG. 1C

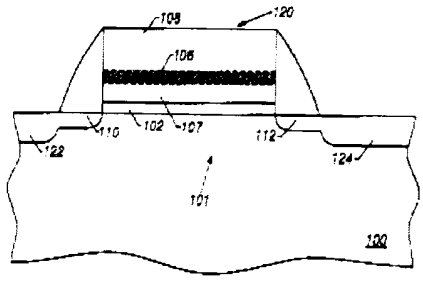


FIG. 1D

small amount of the dopant is preferably implanted into the region of the barrier region 106 or into the polysilicon region 107 layer below the barrier region 106. Through subsequent heat treatment operations (e.g., implant anne steps) the barrier region 106 retards the downward diffusion of the boron and helps prevent boron from reaching the gate dielectric 102/polysilicon 104 interface. Alternatively, the dopant profile may exist entirely within the upper layer of polysilicon 108. In either case, the barrier region 106 retards the downward diffusion of dopant toward the gate dielectric 102 and toward th channel region 101.

In another embodiment generally following the sequence depicted in FIGS 1A-1D, the barrier region 106 may be formed by depositing a nitrogen-contain layer, such as silicon nitride or titanium nitride, onto the top surface of polysilicon 104. Suitable conditions for depositing a layer of silicon nitride are low pressure chemical vapor deposition (LPCVD), plasma deposition and deposition by sputtering. Suitable conditions for depositing a layer of titanium nitride are low pressure chemical vapor deposition, plasma deposition and deposition by sputtering. Such a layer of titanium nitride is electrically conductive and thus helps ensure a good electrical connection between polysilicon region 107 and polysilicon region 108.

FIG. 3 is a cross-sectional view of a multi-layer structure incorporating three polysilicon layers, with a separate barrier region between each adjacent

EAST Advanced Find

Find what: 108

Find Next

Cancel

Area: All / Sel/Cur

Direction: Up / Down

Match word: Whole / Left / Part / Right

Look in: Grid / Documents

Match case

Titl

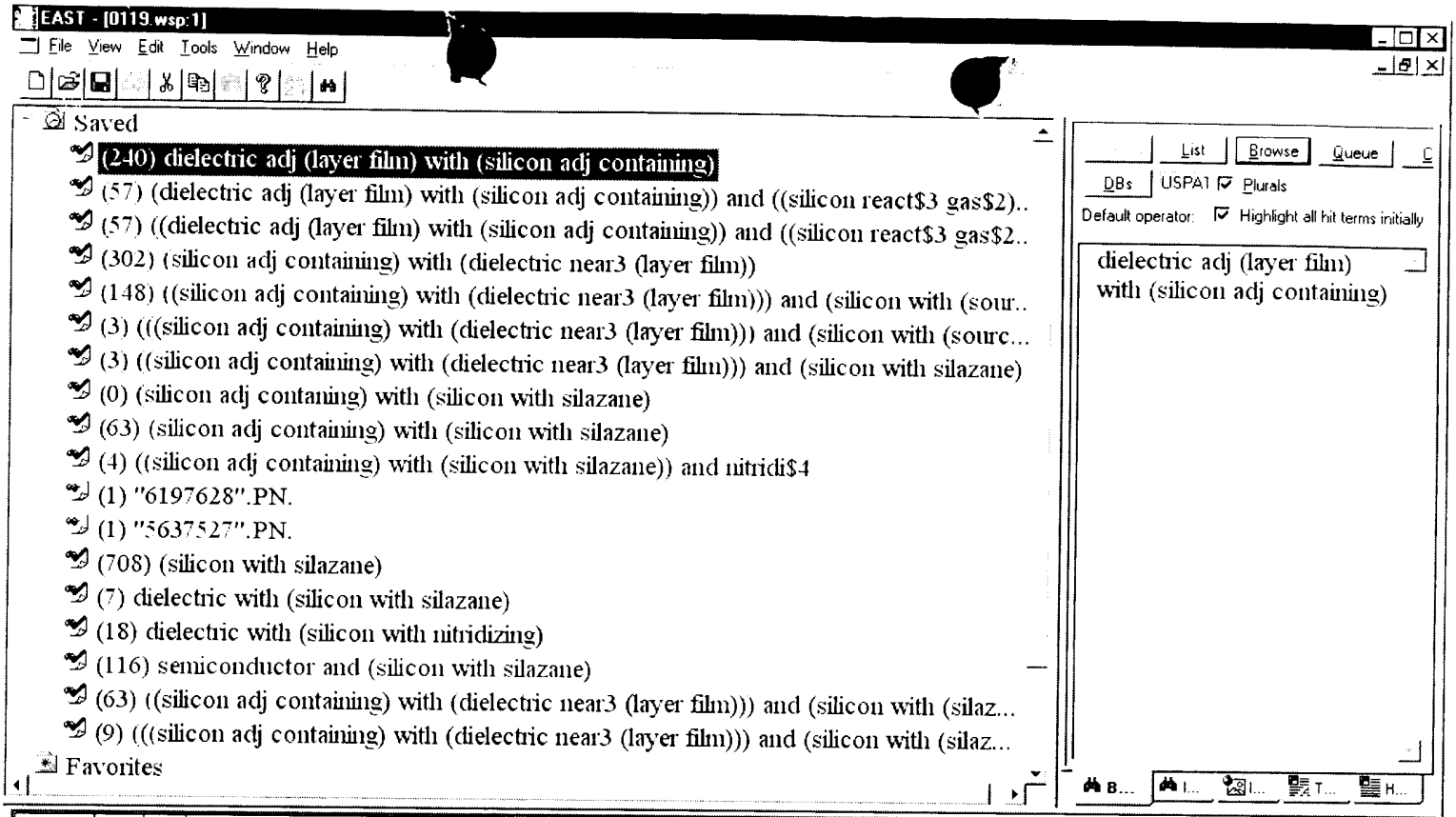
fusion-ref

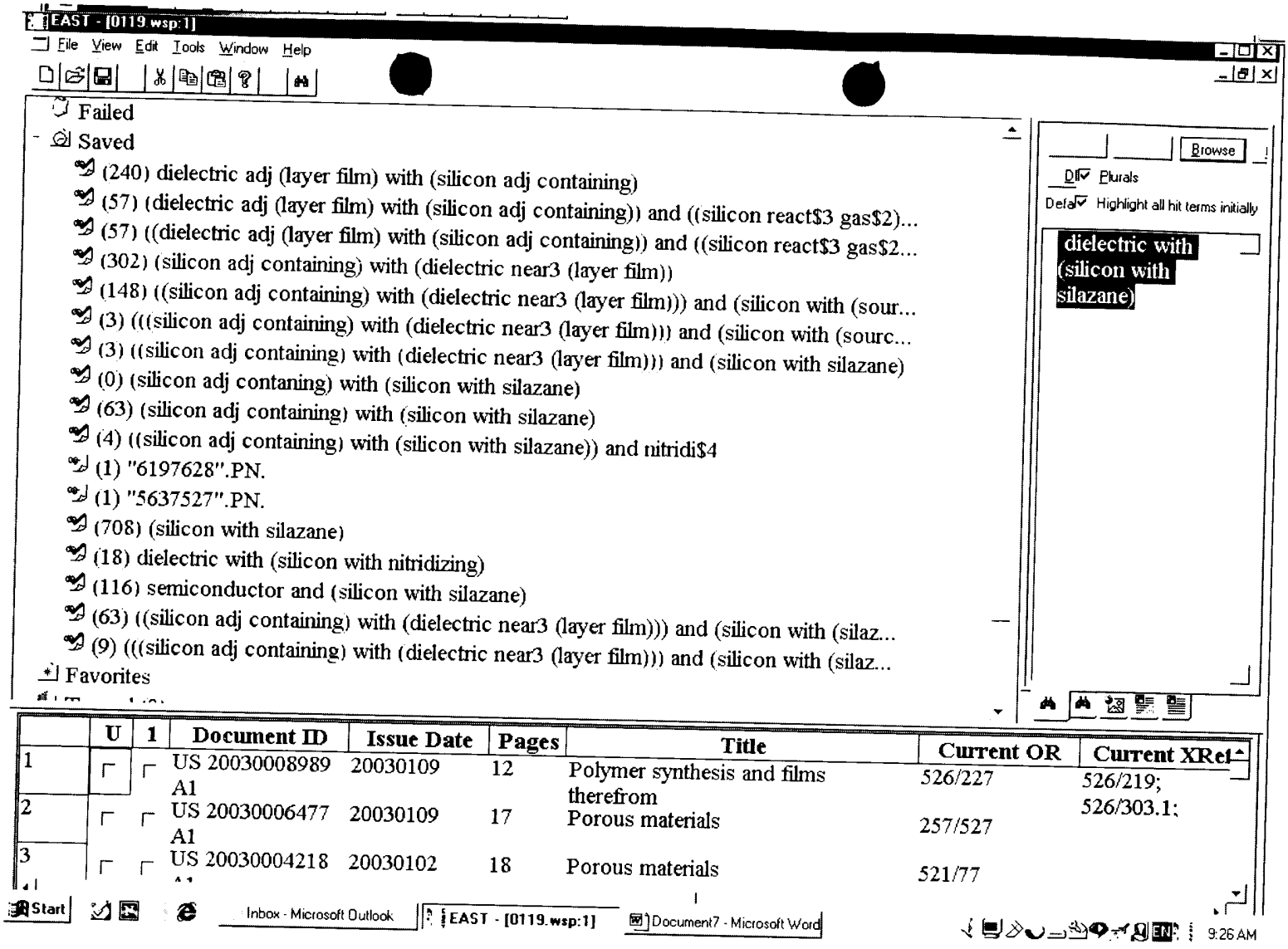
ned within

s with imp

fects and

ormation


EAST - [0119.wsp:1]
File View Edit Tools Window Help
Saved
(240) dielectric adj (layer film) with (silicon adj containing)
(57) (dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2)..
(57) ((dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2..
(302) (silicon adj containing) with (dielectric near3 (layer film))
(148) ((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (sour..
(3) (((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (sourc...
(3) ((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with silazane)
(0) (silicon adj contaning) with (silicon with silazane)
(63) (silicon adj containing) with (silicon with silazane)
(4) ((silicon adj containing) with (silicon with silazane)) and nitridi$4
(1) "6197628".PN.
(1) "5637527".PN.
(708) (silicon with silazane)
(7) dielectric with (silicon with silazane)
(18) dielectric with (silicon with nitridizing)
(116) semiconductor and (silicon with silazane)
(63) ((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silaz...
(9) (((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silaz...
Favorites
List Browse Queue C
DBs USPAT Plurals
Default operator: Highlight all hit terms initially
dielectric adj (layer film)
with (silicon adj containing)
B... I... I... T... H...
U 1 Document ID Issue Date Pages Title Current OR Current XRef


EAST - [0119.wsp:1]
File View Edit Tools Window Help
Failed
Saved
(240) dielectric adj (layer film) with (silicon adj containing)
(57) (dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2)...
(57) ((dielectric adj (layer film) with (silicon adj containing)) and ((silicon react$3 gas$2...
(302) (silicon adj containing) with (dielectric near3 (layer film))
(148) ((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (sour...
(3) (((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (sourc...
(3) ((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with silazane)
(0) (silicon adj contaning) with (silicon with silazane)
(63) (silicon adj containing) with (silicon with silazane)
(4) ((silicon adj containing) with (silicon with silazane)) and nitridi$4
(1) "6197628".PN.
(1) "5637527".PN.
(708) (silicon with silazane)
(18) dielectric with (silicon with nitridizing)
(116) semiconductor and (silicon with silazane)
(63) ((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silaz...
(9) (((silicon adj containing) with (dielectric near3 (layer film))) and (silicon with (silaz...
Favorites
Browse
Plurals
Highlight all hit terms initially
dielectric with (silicon with silazane)
U 1 Document ID Issue Date Pages Title Current OR Current XRef
1 US 20030008989 A1 20030109 12 Polymer synthesis and films therefrom 526/227 526/219; 526/303.1;
2 US 20030006477 A1 20030109 17 Porous materials 257/527
3 US 20030004218 20030102 18 Porous materials 521/77
Start
Inbox - Microsoft Outlook
EAST - [0119.wsp:1]
Document7 - Microsoft Word
9:26 AM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L9: (3) "10273667"

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
17	☐	☐	US 6426127 B1	20020730	12	Electron beam modification of perhydrosilazane spin-on glass	427/503	427/496; 427/497;
18	☑	☐	US 6383466 B1	20020507	11	Method of dehydroxylating a hydroxylated material and method of	423/335	516/100; 516/111
19	☐	☐	US 6245690 B1	20010612	22	Method of improving moisture	438/780	257/E21.263; 257/E21.277;
20	☑	☐	US 6074939 A	20000613	14	Method for fabricating semiconductor device	438/596	257/E21.703;
21	☑	☐	US 6066573 A	20000523	5	Method of producing dielectric film	438/778	257/E27.112; 257/632;
22	☑	☐	US 6061112 A	20000509	13	Method of fabricating a reflection type liquid crystal display in which th	349/113	257/758; 349/158
23	☑	☐	US 6007878 A	19991228	25	Process for producing an optical recording medium having a protective	427/562	427/563; 427/564;
24	☑	☐	US 5940154 A	19990817	12	Reflection type liquid crystal display and method of fabricating the same	349/113	
25	☑	☐	US 5393815 A	19950228	7	Silazane-based, heat resistant, dielectric coating compositions	524/262	524/404; 524/430;
26	☐	☐	US 5318928 A	19940607	4	Method for the surface passivation of sensors using an in situ sputter cleani	438/50	257/E21.26; 257/E21.266;
27	☑	☐	US 5254411 A	19931019	9	Formation of heat-resistant dielectric coatings	428/447	427/377; 427/387
28	☐	☐	US 4719125 A	19880112	6	Cyclosilazane polymers as dielectric films in integrated circuit fabrication t	438/780	257/E21.263; 257/E21.271;
29	☑	☐	DE 3490007 T	19840605		Semiconductor device mfr. using polysilazane coating - patterned then		

Start EAS... Inbox... My Ya... 10080... 10080... 10080... 10080... Action... EN 3:03 PM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L9: (3) "10273667"

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
5	☐	☐	US 20030030082 A1	20030213	8	Method of forming an ultra thin dielectric film and a semiconductor d	257/288	257/324; 257/411;
6	☑	☐	US 20020182849 A1	20021205	5	METHOD FOR FABRICATING A LOW DIELECTRIC CONSTANT	438/623	
7	☐	☐	US 20020182845 A1	20021205	17	Method of filling a concave portion with an insulating material	438/618	438/197
8	☐	☐	US 20020172898 A1	20021121	9	Layered hard mask and dielectric materials and methods therefor	430/328	427/596; 430/311;
9	☐	☐	US 20020160614 A1	20021031	16	Method of forming an interlayer dielectric film	438/694	
10	☐	☐	US 20020135031 A1	20020926	15	Method for forming a dielectric layer and semiconductor device incorporati	257/405	
11	☐	☐	US 20020064936 A1	20020530	6	Method of forming interlevel dielectric layer of semiconductor devi	438/623	438/626; 438/631
12	☐	☐	US 20020043695 A1	20020418	9	Method for forming an ultra thin dielectric film and a semiconductor d	257/435	
13	☐	☐	US 20010026849 A1	20011004	23	Method of improving moisture resistance of low dielectric constant fi	427/569	118/723R; 427/376.2;
14	☐	☐	US 6479399 B2	20021112	6	Method of forming interlevel dielectric layer of semiconductor devi	438/738	438/623; 438/624;
15	☐	☐	US 6448187 B2	20020910	22	Method of improving moisture resistance of low dielectric constant fi	438/758	257/E21.263; 257/E21.277;
16	☑	☐	US 6433359 B1	20020813	11	Surface modifying layers for organic thin film transistors	257/40	257/411; 438/99
17	☐	☐	US 6426127 B1	20020730	12	Electron beam modification of perhydrosilazane spin-on glass	427/503	427/496; 427/497;
18			US 6383466 B1	20020507	11	Method of dehydrogenating a	423/325	516/100;

Start EAST... Inbox - ... My Yah... 100801... 100801... 100801... 100801... Action ... EN 3:03 PM

17
2,4
73

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L9: (3) "10273667"

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
1	☐	☐	US 20030062599 A1	20030403	19	Process for producing semiconductor substrates and semico	257/632	257/635; 257/642;
2	☐	☐	US 20030054667 A1	20030320	24	Method of improving moisture resistance of low dielectric constant fi	438/780	438/623; 438/638
3	☑	☐	US 20030054616 A1	20030320	27	Electronic devices and methods of manufacture	438/400	
4	☐	☐	US 20030052338 A1	20030320	14	Dielectric layer for semiconductor device having less current leakage and	257/200	
5	☐	☐	US 20030030082 A1	20030213	8	Method of forming an ultra thin dielectric film and a semiconductor d	257/288	257/324; 257/411;
6	☑	☐	US 20020182849 A1	20021205	5	METHOD FOR FABRICATING A LOW DIELECTRIC CONSTANT	438/623	
7	☐	☐	US 20020182845 A1	20021205	17	Method of filling a concave portion with an insulating material	438/618	438/197
8	☐	☐	US 20020172898 A1	20021121	9	Layered hard mask and dielectric materials and methods therefor	430/328	427/596; 430/311;
9	☐	☐	US 20020160614 A1	20021031	16	Method of forming an interlayer dielectric film	438/694	
10	☐	☐	US 20020135031 A1	20020926	15	Method for forming a dielectric layer and semiconductor device incorporati	257/405	
11	☐	☐	US 20020064936 A1	20020530	6	Method of forming interlevel dielectric layer of semiconductor devi	438/623	438/626; 438/631
12	☐	☐	US 20020043695 A1	20020418	9	Method for forming an ultra thin dielectric film and a semiconductor d	257/435	
13	☐	☐	US 20010026849 A1	20011004	23	Method of improving moisture resistance of low dielectric constant fi	427/569	118/723R; 427/376.2;
14			US 6170200 B1	20011113	6	Method of forming interlevel	438/738	438/633;

Start EAST... Inbox - ... My Yah... 100801... 100801... 100801... 100801... Action... EN 3:03 PM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L7: (70) 6 and ($20silazane with deposit$3)

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
1	☐	☐	US 20030068881 A1	20030410	11	Method of depositing low k barrier layers	438/637	
2	☐	☐	US 20030062599 A1	20030403	19	Process for producing semiconductor substrates and semico	257/632	257/635; 257/642;
3	☐	☐	US 20030060302 A1	20030327	15	Highly durable and abrasion resistant composite diamond-like carbon deco	473/282	
4	☐	☐	US 20030054667 A1	20030320	24	Method of improving moisture resistance of low dielectric constant fi	438/780	438/623; 438/638
5	☐	☐	US 20030052338 A1	20030320	14	Dielectric layer for semiconductor device having less current leakage and	257/200	
6	☐	☐	US 20030030082 A1	20030213	8	Method of forming an ultra thin dielectric film and a semiconductor d	257/288	257/324; 257/411;
7	☐	☐	US 20030017623 A1	20030123	13	Reliable adhesion layer interface structure for polymer memory electro	438/3	
8	☐	☐	US 20020182845 A1	20021205	17	Method of filling a concave portion with an insulating material	438/618	438/197
9	☐	☐	US 20020172898 A1	20021121	9	Layered hard mask and dielectric materials and methods therefor	430/328	427/596; 430/311;
10	☐	☐	US 20020160614 A1	20021031	16	Method of forming an interlayer dielectric film	438/694	
11	☐	☐	US 20020135031 A1	20020926	15	Method for forming a dielectric layer and semiconductor device incorporati	257/405	
12	☐	☐	US 20020064936 A1	20020530	6	Method of forming interlevel dielectric laver of semiconductor devi	438/623	438/626; 438/631
13	☐	☐	US 20020060348 A1	20020523	9	System and device including a barrier layer	257/412	
14			US 20020054565	20020509	12	Optical information medium and its	369/283	364/1.22;

Start EAS... Inbox... My Y... 1008... 1008... 1008... 1008... Actio... EN 3:04 PM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L7: (70) 6 and ($20silazane with deposit$3)

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
14	☐	☐	US 20020054565 A1	20020509	12	Optical information medium and its testing method	369/283	264/1.33; 264/1.7;
15	☐	☐	US 20020043695 A1	20020418	9	Method for forming an ultra thin dielectric film and a semiconductor d	257/435	
16	☐	☐	US 20020032073 A1	20020314	15	HIGHLY DURABLE AND ABRASION RESISTANT COMPO	473/324	473/349
17	☐	☐	US 20020025658 A1	20020228	9	Method for forming a barrier layer	438/486	
18	☐	☐	US 20020015135 A1	20020207	32	Image projection system with a polarizing beam splitter	353/31	
19	☐	☐	US 20010034076 A1	20011025	16	Process for wafer level treatment to reduce stiction and passivate microm	438/50	438/780
20	☐	☐	US 20010029114 A1	20011011	6	Method of forming polymeric layers of silicon oxynitride	438/794	438/790
21	☐	☐	US 20010026849 A1	20011004	23	Method of improving moisture resistance of low dielectric constant fi	427/569	118/723R; 427/376.2;
22	☐	☐	US 6501014 B1	20021231	15	Coated article and solar battery module	136/256	136/251; 257/434;
23	☐	☐	US 6479399 B2	20021112	6	Method of forming interlevel dielectric layer of semiconductor devi	438/738	438/623; 438/624;
24	☐	☐	US 6475883 B2	20021105	9	Method for forming a barrier layer	438/486	438/398; 438/652
25	☐	☐	US 6448187 B2	20020910	22	Method of improving moisture resistance of low dielectric constant fi	438/758	257/E21.263; 257/E21.277;
26	☐	☐	US 6447120 B2	20020910	33	Image projection system with a polarizing beam splitter	353/20	359/486
27	☐	☐	US 6426137 B1	20020730	12	Electron beam modification of	427/503	427/496;

Start EAS... Inbox... My Y... 1008... 1008... 1008... 1008... Actio... EN 3:04 PM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L7: (70) 6 and ($20silazane with deposit$3)

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
27	☐	☐	US 6426127 B1	20020730	12	Electron beam modification of perhydrosilazane spin-on glass	427/503	427/496; 427/497;
28	☐	☐	US 6410968 B1	20020625	8	Semiconductor device with barrier layer	257/412	438/287
29	☐	☐	US 6379988 B1	20020430	24	Pre-release plastic packaging of MEMS and IMEMS devices	438/51	438/106; 438/115;
30	☐	☐	US 6335224 B1	20020101	11	Protection of microelectronic devices during packaging	438/114	438/113; 438/460;
31	☐	☐	US 6245690 B1	20010612	22	Method of improving moisture resistance of low dielectric constant fi	438/780	257/E21.263; 257/E21.277;
32	☐	☐	US 5976466 A	19991102	34	Multiple-probe diagnostic sensor	422/82.11	250/361C; 250/461.1;
33	☐	☐	US 5776603 A	19980707	8	Glazing pane equipped with at least one thin film and method of manufact	428/336	359/580; 359/586;
34	☐	☐	US 5733611 A	19980331	14	Method for densification of porous billets	427/591	427/255.6; 427/430.1;
35	☐	☐	US 5679413 A	19971021	15	Highly abrasion-resistant, flexible coatings for soft substrates	427/534	427/527; 427/562;
36	☐	☐	US 5618619 A	19970408	14	Highly abrasion-resistant, flexible coatings for soft substrates	428/334	427/527; 427/534;
37	☐	☐	US 5380553 A	19950110	14	Reverse direction pyrolysis processing	427/226	427/126.1; 427/126.2;
38	☐	☐	US 5322913 A	19940621	30	Polysilazanes and related compositions, processes and uses	528/15	264/239; 264/280;
39	☐	☐	US 5318928 A	19940607	4	Method for the surface passivation of sensors using an in situ sputter cleani	438/50	257/E21.26; 257/E21.266;
40	☐	☐	US 5318867 A	19940607	8	Low temperature azeotropic of	428/552	257/E21.271;

Start EAS... Inbox... My Y... 1008... 1008... 1008... 1008... Actio... EN 3:04 PM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L7: (70) 6 and ($20silazane with deposit$3)

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
40	☐	☐	US 5318857 A	19940607	8	Low temperature ozonolysis of silicon and ceramic oxide precursor p	428/552	257/E21.271; 257/E23.118;
41	☐	☐	US 5310720 A	19940510	8	Process for fabricating an integrated circuit device by forming a planarized	438/760	257/E21.243; 257/E21.271;
42	☐	☐	US 5262201 A	19931116	8	Low temperature process for converting silica precursor coatings t	427/376.2	257/E21.271; 427/377;
43	☐	☐	US 5183684 A	19930202	11	Single and multilayer coatings containing aluminum nitride	427/574	427/126.1; 427/126.2;
44	☐	☐	US 5118530 A	19920602	8	Use of hydrogen silsesquioxane resin fractions as coating materials	427/226	257/E21.262; 427/377;
45	☐	☐	US 5116637 A	19920526	8	Amine catalysts for the low temperature conversion of silica prec	427/340	427/126.2; 427/126.4;
46	☐	☐	US 5091162 A	19920225	6	Perhydrosiloxane copolymers and their use as coating materials	423/325	423/347; 502/232;
47	☐	☐	US 5063267 A	19911105	8	Hydrogen silsesquioxane resin fractions and their use as coating mat	524/284	257/E21.262; 423/324;
48	☐	☐	US 5055431 A	19911008	14	Polysilazanes and related compositions, processes and uses	501/96.2	264/624; 423/353;
49	☐	☐	US 5008422 A	19910416	29	Polysilazanes and related compositions, processes and uses	556/412	556/402; 556/410
50	☐	☐	US 5008320 A	19910416	10	Platinum or rhodium catalyzed multilayer ceramic coatings from hydr	524/361	428/457; 428/688;
51	☐	☐	US 4997482 A	19910305	9	Coating composition containing hydrolyzed silicate esters and other m	106/287.16	257/E21.266; 257/E21.271;
52	☐	☐	US 4952715 A	19900828	15	Polysilazanes and related compositions, processes and uses	556/409	528/15; 528/28
53	☐	☐	US 4950950 A	19900821	16	Electroluminescent device with	313/504	313/506;

Start EAS... Inbox... My Y... 1008... 1008... 1008... 1008... Actio... EN 3:04 PM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L7: (70) 6 and ($20silazane with deposit$3)

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
52	☐	☐	US 4952715 A	19900828	15	Polysilazanes and related compositions, processes and uses	556/409	528/15; 528/28
53	☐	☐	US 4950950 A	19900821	16	Electroluminescent device with silazane-containing luminescent zone	313/504	313/506; 428/690;
54	☐	☐	US 4911992 A	19900327	18	Platinum or rhodium catalyzed multilayer ceramic coatings from hydr	428/698	427/122; 427/126.2;
55	☐	☐	US 4898907 A	19900206	8	Compositions of platinum and rhodium catalyst in combination with	524/490	106/287.1; 106/287.14;
56	☐	☐	US 4863755 A	19890905	24	Plasma enhanced chemical vapor deposition of thin films of silicon nitri	427/574	257/E21.293; 427/579;
57	☐	☐	US 4822697 A	19890418	13	Platinum and rhodium catalysis of low temperature formation multilayer	428/698	257/E21.262; 257/E21.271;
58	☐	☐	US 4808653 A	19890228	8	Coating composition containing hydrogen silsesquioxane resin and ot	524/398	106/287.1; 106/287.14;
59	☐	☐	US 4756977 A	19880712	13	Multilayer ceramics from hydrogen silsesquioxane	428/704	257/E21.266; 257/E21.271;
60	☐	☐	US 4753856 A	19880628	15	Multilayer ceramic coatings from silicate esters and metal oxides	428/698	257/E21.266; 257/E21.271;
61	☐	☐	US 4753855 A	19880628	14	Multilayer ceramic coatings from metal oxides for protection of electro	428/702	257/E21.502; 257/E23.118;
62	☐	☐	US 4751191 A	19880614	8	Method of fabricating solar cells with silicon nitride coating	438/72	136/256; 136/258;
63	☐	☐	US 4749631 A	19880607	17	Multilayer ceramics from silicate esters	428/704	136/256; 257/E21.271;
64	☐	☐	US 4719125 A	19880112	6	Cyclosilazane polymers as dielectric films in integrated circuit fabrication t	438/780	257/E21.263; 257/E21.271;

Start EAS... Inbox... My Y... 1008... 1008... 1008... 1008... Activa... EN 3:04 PM

EAST - [0119.wsp:1]

File View Edit Tools Window Help

L7: (70) 6 and ($20silazane with deposit$3)

L10: (29) 6 and ($20silazane with dielectric)

Browse Queue Clear

BRS form IS&R form Image Text HTML

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current XRef
58	☐	☐	US 4808653 A	19890228	8	Coating composition containing hydrogen silsesquioxane resin and ot	524/398	106/287.1; 106/287.14;
59	☐	☐	US 4756977 A	19880712	13	Multilayer ceramics from hydrogen silsesquioxane	428/704	257/E21.266; 257/E21.271;
60	☐	☐	US 4753856 A	19880628	15	Multilayer ceramic coatings from silicate esters and metal oxides	428/698	257/E21.266; 257/E21.271;
61	☐	☐	US 4753855 A	19880628	14	Multilayer ceramic coatings from metal oxides for protection of electro	428/702	257/E21.502; 257/E23.118;
62	☐	☐	US 4751191 A	19880614	8	Method of fabricating solar cells with silicon nitride coating	438/72	136/256; 136/258;
63	☐	☐	US 4749631 A	19880607	17	Multilayer ceramics from silicate esters	428/704	136/256; 257/E21.271;
64	☐	☐	US 4719125 A	19880112	6	Cyclosilazane polymers as dielectric films in integrated circuit fabrication t	438/780	257/E21.263; 257/E21.271;
65	☐	☐	US 4599243 A	19860708	11	Use of plasma polymerized organosilicon films in fabrication of li	216/18	216/40; 427/489;
66	☐	☐	US 4562091 A	19851231	9	Use of plasma polymerized orgaosilicon films in fabrication of lift	427/489	204/165; 427/488;
67	☐	☐	US 4493855 A	19850115	10	Use of plasma polymerized organosilicon films in fabrication of li	438/670	204/192.32; 427/489;
68	☐	☐	US 4451969 A	19840605	9	Method of fabricating solar cells	438/62	136/256; 257/E21.174;
69	☐	☐	WO 200217374 A	20020228	60	Formation of silicon nitride film for semiconductor device, involves suppl		
70	☑	☐	EP 252870 A	19880113		Plasma-deposited abrasion-resistant coating prodn. - using as plasma mon		

Start EAS... Inbox... My Y... 1008... 1008... 1008... 1008... Actio... 3:04 PM